First report of *Didymella bellidis* causing leaf spots on *Angelica gigas* in South Korea

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Received: 3 March 2020 / Accepted: 12 May 2020 / Published online: 3 June 2020
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Keywords Umbelliferae · Medicinal plant · Fungal diseases · Seedling

Angelica gigas Nakai (Umbelliferae) is cultivated as a medicinal plant in East Asia. In 2019, pale to dark-brown, orbicular to irregular, 0.5–1.7 cm in diam. leaf spots, which often merged to form larger blotches on the surface of mature leaves, were observed in Bonghwa (35°00'32.4"N 126°49'17.6"E) and Yeongyang (36°51'21.8"N 129°11'03.0"E), in Gyeongsangbuk province of South Korea. The fungus was isolated from the margins of spots. White to light grey, gradually turning to olivaceous grey colonies were produced on 2% malt extract agar after 14 days of incubation. Axenic cultures prepared from single conidia produced pycnidia which were dark, globose to subglobose, 149.5–197.8 × 115.1–213.9 µm. Conidia were smooth, oval, 1-celled, usually guttulate, 3.7–6.3 × 1.9–2.5 µm. Morphological characteristics suggested that the fungus is *Didymella bellidis* (Neerg.) Qian Chen & L. Cai (de Gruyter et al. 1993; Chen et al. 2015). The fungus was deposited in Culture Collection, National Institute of Forest Science, South Korea (CDH2019–6–7). DNA of the fungus was extracted and amplified, and the ITS and β -tubulin genes (GenBank MT114578–9, MT121110–1) were sequenced. A BLASTn analysis showed 99% identity of the studied isolate with *D. bellidis* (GU237904 for ITS, GU237586 for β -tubulin) (Chen et al. 2015). A pathogenicity test was carried out on ten 8-week-old plants of *A. gigas*. Leaves of each plant were

sprayed with 10 ml of conidial suspension (10^5 conidia/ml, isolate CDH2019–6). Five control plants were sprayed with sterile water. After 14 days, in the greenhouse, at 25 °C and 80% relative humidity, the leaf spots appeared. *Didymella bellidis* was re-isolated from 85% of spots, fulfilling Koch's postulates. This is the first report of *D. bellidis* on *A. gigas* in South Korea (Farr and Rossman 2020).

Acknowledgements The authors acknowledge the financial support from the National Institute of Forest Science, 'Development of management tools for insect pests and fungal pathogens occurring on forest tree crops, no. FP0802-2017-02'.

Compliance with ethical standards

Conflict of interest The authors have no conflicts of interest to declare.

Ethical statements All the authors have sufficiently contributed to the work, have agreed to this submission and are responsible for its contents. This manuscript including the data that are supporting the aim and the conclusion of this research is new and is not being considered elsewhere. No data have been fabricated or manipulated for being published to the journal.

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